

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of driving a display device which comprises a pixel comprising an EL element and a thin film transistor, comprising the step of:

dividing one frame period into plural sub-frame periods, and

applying one of a first gate voltage and a second gate voltage to a gate electrode of the thin film transistor during each of the plural sub-frame periods,

wherein a drain current of the thin film transistor flows between both electrodes of the EL element to place the EL element into an emitting state when the first gate voltage is applied to the gate electrode of the thin film transistor,

wherein the thin film transistor is placed into a non-conductive state and the EL element is placed into a non-emitting state when the second gate voltage is applied to the gate electrode of the thin film transistor, and

wherein the thin film transistor is operated in a saturation region in order to keep said drain current constant with respect to temperature variations.

2. (Currently Amended) A method of driving a display device which comprises a pixel comprising an EL element, a thin film transistor and a resistor, comprising the step of:

dividing one frame period into plural sub-frame periods, and

applying one of a first gate voltage and a second gate voltage to a gate electrode of the thin film transistor during each of the plural sub-frame periods,

wherein a drain current of the thin film transistor flows across the resistor and both electrodes

of the EL element and the EL element is placed into an emitting state when the first gate voltage is applied to the thin film transistor,

wherein the thin film transistor is placed into a non-conductive state and the EL element is placed into a non-emitting state when the second gate voltage is applied to the gate electrode of the thin film transistor, and

wherein the thin film transistor is operated in a saturation region in order to keep said drain current constant with respect to temperature variations.

3. (Canceled)

4. (Original) A method of driving a display device according to claim 1, wherein the EL element enables color display by using an EL layer which emits light of one color in combination with a color conversion layer.

5. (Original) A method of driving a display device according to claim 1, wherein the EL element enables color display by using an EL layer which emits white light, in combination with a color filter.

6. (Original) A method of driving a display device according to claim 1, wherein an EL layer of the EL element comprises one of a low molecular weight organic material and a polymeric organic material.

7. (Original) A method of driving a display device according to claim 6, wherein the low

molecular weight organic material is one of Alq₃ (tris-8-quinolinolato-aluminum) and TPD (triphenylamine derivative).

8. (Original) A method of driving a display device according to claim 6, wherein the polymeric organic material is one of PPV (polyphenylene vinylene), PVK (poly(vinylcarbazole), and polycarbonate.

9. (Original) A method of driving a display device according to claim 1, wherein the EL layer of the EL element comprises an inorganic material.

10-11. (canceled)

12. (Original) A method of driving a display device according to claim 2, wherein the EL element enables color display by using an EL layer which emits light of one color in combination with a color conversion layer.

13. (Original) A method of driving a display device according to claim 2, wherein the EL element enables color display by using an EL layer which emits white light, in combination with a color filter.

14. (Original) A method of driving a display device according to claim 2, wherein an EL layer of the EL element comprises one of a low molecular weight organic material and a polymeric organic material.

15. (Original) A method of driving a display device according to claim 14, wherein the low molecular weight organic material is one of Alq₃ (tris-8-quinolinolato-aluminum) and TPD (triphenylamine derivative).

16. (Original) A method of driving a display device according to claim 14, wherein the polymeric organic material is one of PPV (polyphenylene vinylene), PVK (poly(vinylcarbazole), and polycarbonate.

17. (Original) A method of driving a display device according to claim 2, wherein the EL layer of the EL element comprises an inorganic material.

18-26 (Canceled)

27. (Currently Amended) A method of driving a display device which comprises a pixel comprising an EL element and a thin film transistor by a time gray scale method, comprising the step of:

applying one of a first gate voltage and a second gate voltage to a gate electrode of the thin film transistor,

wherein the EL element is placed into an emitting state when the first gate voltage is applied to the gate electrode of the thin film transistor,

wherein the EL element is placed into a non-emitting state when the second gate voltage is applied to the gate electrode of the thin film transistor, and

wherein the thin film transistor is operated in a saturation region when the first voltage is applied to the gate electrode of the thin film transistor to place the EL element in the emitting state.

28. (Currently Amended) A method of driving a display device which comprises a pixel comprising an EL element, a thin film transistor and a resistor by a time gray scale method, comprising the step of:

applying one of a first gate voltage and a second gate voltage to a gate electrode of the thin film transistor,

wherein the EL element is placed into an emitting state when the first gate voltage is applied to the thin film transistor,

wherein the EL element is placed into a non-emitting state when the second gate voltage is applied to the gate electrode of the thin film transistor, and

wherein the thin film transistor is operated in a saturation region when the first voltage is applied to the gate electrode of the thin film transistor to place the EL element in the emitting state.

29. (Canceled)

30. (Original) A method of driving a display device according to claim 27, wherein the EL element enables color display by using an EL layer which emits light of one color in combination with a color conversion layer.

31. (Original) A method of driving a display device according to claim 27, wherein the EL element enables color display by using an EL layer which emits white light, in combination with a

color filter.

32. (Original) A method of driving a display device according to claim 27, wherein an EL layer of the EL element comprises one of a low molecular weight organic material and a polymeric organic material.

33. (Original) A method of driving a display device according to claim 32, wherein the low molecular weight organic material is one of Alq₃ (tris-8-quinolinolato-aluminum) and TPD (triphenylamine derivative).

34. (Original) A method of driving a display device according to claim 32, wherein the polymeric organic material is one of PPV (polyphenylene vinylene), PVK (poly(vinylcarbazole), and polycarbonate.

35. (Original) A method of driving a display device according to claim 27, wherein the EL layer of the EL element comprises an inorganic material.

36-37. (Canceled)

38. (Original) A method of driving a display device according to claim 28, wherein the EL element enables color display by using an EL layer which emits light of one color in combination with a color conversion layer.

39. (Original) A method of driving a display device according to claim 28, wherein the EL element enables color display by using an EL layer which emits white light, in combination with a color filter.

40. (Original) A method of driving a display device according to claim 28, wherein an EL layer of the EL element comprises one of a low molecular weight organic material and a polymeric organic material.

41. (Original) A method of driving a display device according to claim 40, wherein the low molecular weight organic material is one of Alq₃ (tris-8-quinolinolato-aluminum) and TPD (triphenylamine derivative).

42. (Original) A method of driving a display device according to claim 40, wherein the polymeric organic material is one of PPV (polyphenylene vinylene), PVK (poly(vinylcarbazole), and polycarbonate.

43. (Original) A method of driving a display device according to claim 28, wherein the EL layer of the EL element comprises an inorganic material.

44-52 (Canceled)

53. (New) A method of driving a display device according to claim 1, wherein one of a source and a drain of the thin film transistor is electrically connected to a power source line and the

other of the source and the drain of the thin film transistor is electrically connected to the EL element.

54. (New) A method of driving a display device according to claim 1, wherein the pixel further comprises a second thin film transistor, one of a source and a drain of the second thin film transistor is electrically connected to the gate electrode of the thin film transistor, the other of the source and the drain of the second thin film transistor is electrically connected to a source signal line, and a gate of the second thin film transistor is electrically connected to a gate signal line.

55. (New) A method of driving a display device according to claim 2, wherein one of a source and a drain of the thin film transistor is electrically connected to a power source line through the resistor and the other of the source and the drain of the thin film transistor is electrically connected to the EL element.

56. (New) A method of driving a display device according to claim 2, wherein the pixel further comprises a second thin film transistor, one of a source and a drain of the second thin film transistor is electrically connected to the gate electrode of the thin film transistor, the other of the source and the drain of the second thin film transistor is electrically connected to a source signal line, and a gate of the second thin film transistor is electrically connected to a gate signal line.

57. (New) A method of driving a display device according to claim 27, wherein one of a source and a drain of the thin film transistor is electrically connected to a power source line and the other of the source and the drain of the thin film transistor is electrically connected to the EL

element.

58. (New) A method of driving a display device according to claim 27, wherein the pixel further comprises a second thin film transistor, one of a source and a drain of the second thin film transistor is electrically connected to the gate electrode of the thin film transistor, the other of the source and the drain of the second thin film transistor is electrically connected to a source signal line, and a gate of the second thin film transistor is electrically connected to a gate signal line.

59. (New) A method of driving a display device according to claim 28, wherein one of a source and a drain of the thin film transistor is electrically connected to a power source line through the resistor and the other of the source and the drain of the thin film transistor is electrically connected to the EL element.

60. (New) A method of driving a display device according to claim 28, wherein the pixel further comprises a second thin film transistor, one of a source and a drain of the second thin film transistor is electrically connected to the gate electrode of the thin film transistor, the other of the source and the drain of the second thin film transistor is electrically connected to a source signal line, and a gate of the second thin film transistor is electrically connected to a gate signal line.